

How precarious are our reservoir levels?

The outcome of a monsoon is normally linked to the crop prospects for the kharif season. But rains are also important when it comes to increasing the water levels in the reservoirs in the country. As monsoons are normally received in the June-September period, with limited states being subjected to the North East monsoon which has shorter tenure between October and December, it is imperative that the water which accumulates in the reservoirs are at healthy levels till the next season. This water is used for various purposes such as drinking for people as well as cattle, fodder, cultivation etc. The months starting from March would tend to witness depleting levels as the country awaits the monsoon. Shortages in reservoir levels does create problems across the country which is being witnessed today. This report provides a picture of the reservoir levels as of 14th March.

There are 150 reservoirs that are monitored by the Central Water Commission on a weekly basis. The total live capacity at full reservoir level (FRL) is around 179 billion cubic metres (BCM). The level of live storage as of 14th March was 40% of the live capacity. The ratio last year at this point of time was 47%. While this is significantly lower, the 10-year average was 41%. Hence the situation is still under control when looked at in the historical context at the aggregate level.

The table below gives the live storage levels ratios as % of live capacity cross various regions as of March 14, 2024.

Region	Number	Live capacity FRL in BCM	Storage/Capacity 2023 %	Storage/Capacity 2024 %	10-year ratio %
North	10	19.7	39	34	35
East	23	20.4	45	51	51
West	49	37.1	57	48	43
Central	26	48.2	49	47	44
South	42	53.3	42	24	34
All	150	178.8	47	40	41

Source: Central Water Commission

The table shows that:

- With the exception of the eastern region, all others have lower live storage levels relative to live capacity as of 14th March.
- The sharpest fall is seen in the southern region from 42% to 24%. Here the states which are under pressure are Andhra Pradesh (13% ratio), Tamil Nadu (30%) and Karnataka (26%). Kerala was an outlier as it witnessed an increase over last year.
- The western region is also lower by 9% which is witnessed in both Maharashtra and Gujarat.
- The northern region has seen a dip from 39% to 34% with Punjab (49 to 36%) and Rajasthan (48 to 40%) witnessing the sharpest declines.

- The eastern region has seen an increase of 6% points. Bihar and Tripura were the only states to witness a decline. It increased for Bengal, Odisha, Assam and Jharkhand. Jharkhand had the highest storage to capacity ratio of 65%.
- Among the central states Uttar Pradesh and Chhattisgarh had witnessed decline in levels relative to last year while Uttarakhand saw improvement. Madhya Pradesh remained unchanged at 54%.

As the summer season sets in next month, the higher evaporation rates would be an ongoing concern. The onset of the monsoon and its progress would hence be very critical from the point of view of water resources in the country.

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